AMENDMENTS TO THE CLAIMS

1. (Previously presented) Process for producing amino acid derivatives which can be obtained by periodate oxidation, ozonolysis or Baeyer-Villiger oxidation of an unsaturated group, in which

(a) an organic amine, the amino functionality of which is protected, or an α-amino acid, the amino functionality of which is protected, is subjected to an electrochemical reaction so as to form an amine which is activated in the α-position;

(b) the activated amine is subjected to a reaction with a carbanionic reagent containing at least 3 carbon atoms and comprising an unsaturated group so as to form an unsaturated amine comprising an unsaturated group, the atom of the unsaturated group closest to the nitrogen being separated from the nitrogen by at least 2 carbon atoms;

(c) the unsaturated amine is subjected to oxidation of the unsaturated group so as to form an amino acid derivative, product of periodate oxidation, ozonolysis or Baeyer-Villiger oxidation of said unsaturated group and

wherein the amino acid derivatives are selected from the group consisting in β-homovaline, β -homophenylalanine, ε-trifluoroacetyl- β -homolysine, β -homolysine, β -homoaspartic acid, β -homoproline, pyrrolidine-2-acetic acid and 2-piperidineacetic acid.

2. (Original) Process according to Claim 1, in which the amino functionality is protected by a protective group comprising a carbonyl group.

3. (Previously Presented) Process according to Claim 2, in which the protective group is an acyl group.

4. (Previously Presented) Process according to Claim 2, in which the protective group is an alkoxycarbonyl group, an aryloxycarbonyl group or an aralkoxycarbonyl group.

5. (Previously Presented) Process according to Claim 1, in which the activated amine is obtained by electrochemical reaction in the presence of a nucleophile so as to form an amine

substituted in the α-position with a nucleophilic substituent, as activated amine, and step (b) is carried out in the presence of a substitution catalyst.

6. (Previously Presented) Process according to Claim 5, in which the nucleophile is chosen from an alcohol and a carboxylic acid.

7. (Currently Amended) Process according to Claim 1, in which ~~an allyl~~ the carbanionic reagent is an allyltrialkylsilane, is used in step (b).

8. (Previously Presented) Process according to Claim 1, in which the unsaturated amine comprises a carbonyl group as unsaturated group.

9. (Previously Presented) Process according to Claim 1, in which the unsaturated amine comprises an olefin double bond as unsaturated group.

10. (Original) Process according to Claim 9, in which the oxidation is oxidative cleavage by ozonolysis.

11. (Previously presented) Process for producing amino acid derivatives, comprising steps:

(a) a racemic amino acid derivative is produced according to the process of Claim 1;

(b) the enantiomers of the racemic amino acid derivative are separated and

wherein the amino acid derivatives are selected from the group consisting in β-homovaline, β -homophenylalanine, ε-trifluoroacetyl- β -homolysine, β -homolysine, β -homoaspartic acid, β -homoproline, pyrrolidine-2-acetic acid and 2-piperidineacetic acid.

12. (Previously Presented) Process according to Claim 11, in which the separation of the enantiomers is carried out by enzymatic reaction.

13. (Previously presented) Process according to Claim 1, in which the product obtained is β-homovaline, β -homophenylalanine, ε-trifluoroacetyl- β -homolysine, β -homolysine, β -homoaspartic acid, or β -homoproline.

14. (Previously Presented) Process according to Claim 2, in which the protective group is acetyl or phenylacetyl group.

15. (Previously Presented) Process according to Claim 2, in which the protective group is a tert-butyloxycarbonyl (BOC) group.

16. (Previously Presented) Process according to Claim 5, wherein said catalyst is a titanium compound.

17. (Previously Presented) Process according to Claim 5, in which the nucleophile is chosen from methanol and acetic acid.

18. (Previously Presented) Process according to Claim 12, wherein the enzymatic reaction is with a penicillinase or a lipase.

19. (Cancelled)

20. (Previously presented) Process for producing an amino acid derivative selected from the group consisting in β-homovaline, β -homophenylalanine, ε-trifluoroacetyl- β -homolysine, β -homolysine, β -homoaspartic acid, β -homoproline, pyrrolidine-2-acetic acid and 2-piperidineacetic acid, having an amino functionality protected by a protective group comprising a carbonyl group, in which:

(a) the protected amino functionality is subjected to an electrochemical reaction so as to form an amine which is activated in the α-position;

(b) the activated amine is subjected to a reaction with a carbanionic reagent containing at least 3 carbon atoms and comprising an unsaturated group so as to form an unsaturated amine comprising an unsaturated group, the atom of the unsaturated group closest to the nitrogen being separated from the nitrogen by at least 2 carbon atoms;

(c) the unsaturated amine is subjected to oxidation of the unsaturated group so as to form the amino acid derivative.

21. (Previously Presented) Process according to Claim 20, wherein the protective group is an acyl group.

22. (Previously Presented) Process according to Claim 20, wherein the protective group is an acetyl or phenylacetyl group.

23. (Previously Presented) Process according to Claim 20, wherein the protective group is an alkoxycarbonyl group, an aryloxycarbonyl group or an aralkoxycarbonyl group.

24. (Previously Presented) Process according to Claim 20, wherein the protective group is a tert-butyloxycarbonyl (BOC) group.

25. (Previously presented) Process according to Claim 20, wherein the activated amine is obtained by electrochemical reaction in the presence of a nucleophile so as to form an amine substituted in the α-position with a nucleophilic substituent, as activated amine, and step (b) is carried out in the presence of a substitution catalyst.

26. (Previously presented) Process according to Claim 20, wherein the activated amine is obtained by electrochemical reaction in the presence of a nucleophile so as to form an amine substituted in the α-position with a nucleophilic substituent, as activated amine, and step (b) is carried out in the presence of a titanium compound.

27. (Previously Presented) Process according to Claim 26, wherein the nucleophile is chosen from an alcohol and a carboxylic acid.

28. (Previously Presented) Process according to Claim 26, wherein the nucleophile is methanol or acetic acid.

29. (Previously Presented) Process according to Claim 20, wherein an allyl carbanionic reagent is used in step (b).

30. (Previously Presented) Process according to Claim 20, wherein an allyltrialkylsilane is used in step (b).

31. (Previously Presented) Process according to Claim 20, in which the unsaturated amine comprises a carbonyl group as unsaturated group.

32. (Previously Presented) Process according to Claim 20, in which the unsaturated amine comprises an olefin double bond as unsaturated group.

33. (Previously Presented) Process according to Claim 32, in which the oxidation is oxidative cleavage by ozonolysis.

34. (Previously presented) Process according to Claim 20, in which the product obtained is a β-homovaline, β -homophenylalanine, ε-trifluoroacetyl- β -homolysine, β -homolysine, β -homoaspartic acid, or β -homoproline.

35. (Previously presented) Process according to Claim 33, in which the product obtained is a β-homovaline, β -homophenylalanine, ε-trifluoroacetyl- β -homolysine, β -homolysine, β -homoaspartic acid, or β –homoproline.

36. (Previously Presented) Process for producing a β amino acid derivative having an amino functionality protected by a protective group comprising a carbonyl group, in which:

(a) the protected amino functionality is subjected to an electrochemical reaction so as to form an amine which is activated in the α-position;

(b) the activated amine is subjected to a reaction with a carbanionic reagent containing at least 3 carbon atoms and comprising an unsaturated group so as to form an unsaturated amine comprising an unsaturated group, the atom of the unsaturated group closest to the nitrogen being separated from the nitrogen by at least 2 carbon atoms;

(c) the unsaturated amine is subjected to oxidation of the unsaturated group so as to form the β amino acid derivative.

37. (Currently Amended) Process according to Claim 36, in which the product obtained is β-homovaline, β -homophenylalanine, β -homolysine, β -homoaspartic acid, or β – homoproline.~~(New) The process according to claim 37, wherein the carbonyl group is a silyl enol ether~~.

38. (Currently Amended) The process according to claim 1, wherein the carbanionic reagent ~~carbonyl group~~ is trialkylsilyl enol ether.

39. (Currently Amended) The process according to claim 13, wherein the carbanionic reagent ~~carbonyl group~~ is trialkylsilyl enol ether of formula

~~$H_2C=C(OSi(alkyl_3)-R$ (I)~~

$H_2C=C(OSi(alkyl)_3$-R (I)

in which R denotes an alkyl or an aryl group.